# 10/533054

# JC20 Rec'd PCT/PTO 27 APR 2005

WO 2004/039837

PCT/EP2003/011792

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#### SEQUENCE LISTING

SEQ ID NO.1

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20 SEQ ID No.4

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- 40 SEQ ID No.7

SEQ ID No.8

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25 SEQ ID No.11

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- 55 SEQ ID No.19

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SEQ ID No.20

MAVMKNYLLPILVLSLAYYYYSTNEEFRPEMLQGKKVIVTGASKGIGREMAYHLSKMGAHVVL TARSEEGLQKVVSRCLELGAASAHYIAGTMEDMTFAEQFIVKAGKLMGGLDMLILNHITQTSLS 20 LFHDDIHSVRRVMEVNFLSYVVMSTAALPMLKQSNGSIAVISSLAGKMTQPMIAPYSASKFALD GFFSTIRTELYITKVNVSITLCVLGLIDTETAMKEISGIIDALASPKEECALEIIKGTALRKSEVYYD KLPLTPILLGNPGRKIMEFFSLRYYNKDMFVSN

### 25 SEQ ID No.21

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### SEQ ID No.22

45
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50
SEEGLLGFITWRKTLSLGVQASLVRHKDASQIRSLQHSAQVLRAIVAVYVICWLPYHARRLMYC
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PQEAPESTTSTYSFRLWGSPRNPSLGEIQV

## 10 SEQ ID No. 24

15

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#### SEQ ID No.25

SEQ ID No.26

SEQ ID No.27

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SEQ ID No.28

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SEQ ID No.29

SEQ ID No.31

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tittittittittittitgeaagagtaaaagtettaattiaetgegeaceteagaaagetacaagtaaaatgtitgtaagaatatacacaaagaatteagagtataaaa tieteeatgtaattagtagteatattaatattagaaetacagtagaaaaaaatagetgicteetagatteteeaggageetaaetgtgtggetttgagaaggtg gagtigttetgagtaggeggaagteaageteacteeteeagteteeeaggageteacggaagteagtgatgtaceacttggegttgteettaaeetgetg cetgateacattgeeteeaaageeaatgaaageateag

SEQ ID No.32

- 15 gac gc gc gac aggic tictac tiacaa aggac aat gac tact gat gag gg cacca gtaacaat gg aga ga acc cag cag caccat gac tag agga gag caccat gac tag agga gag aga gag agga agga gag agga agga20 gcctgggacattggggtgtctactatgaagaaaggcgagatctgccatttattatgtaaaccagaatatgcttatggctcggctggccacctccaaaaaattccatcaa at gcaact ctcttttttgagattgagctccttgatttcaa aggtgaggatttatttgaagattcaggcgttatccgtagaatcaa acggaa aggcgaautcaa aggtgagaattgagattattgaagattcaggcgattatcaggcgattatccgtagaatcaa acggaa aggcgaautcaa aggcgaautcaa acggaa acggaagggalactcaaacccaaacgaaggagcaacgglaaaagtccacctggaaggctgctgtgggaaggacatttgattgccgagatgtggtgttcgttgtt  ${\tt gggaaggaagaacacgacattccgattgggatcgacaaagccctggtgaagatgcagagagaagaacagtgtattctatatcttggaccacgctat}$ ggttttggagaagccgggaagcctaagtttggcattgaccccaatgctgagcttatgtacgaggtcacccttaagagcttcgagaaggccaaagaatcttg ${\tt ggagatggacaccaaagaaaagctgacgcaggctgccatcgtgaaagagaagggaactgtgtacttcaagggaggcaagtacacgcaggccgtgat}$ tcagtacaggaagatagtgtcctggctggagatggaatacggcctgtcagagaaggagtccaaagcctcagagtcgttcctcctcgcagccttcctgaac ctggccatgtgctacctgaagctccgagagtacaacaaagccgtggagtgctgcgacaaggcccttggactggacagtgccaatgagaaaggcttgtagcctgcagatctccatgtgccagagggaagggaggagcacaacgaggggaccgcagggtgtacgccaacatgttcaagaagttcgcagagcggg30  ${\tt gggggacatgccaggaaacagcagaaaggccgctggtgtgaagaagaccaggccagctagtccagcccatttcagtttgtcacctttcagtgtc}$ 35 cect gg tecacaget gg gt cteagg excettacet geet tecaagt cette geagact ctt gag tg tg gett tet gt cetage cage at gt cecacagacte.tgttgttcctccaacgcccgtcattagtgacagctttctctctgagtttctgtggtgtggagagtgggtagaagtaggtttatctttcccgctgtctgccccactcaaggacgat
- 40 SEQ ID No.33

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45 EGEDHDIPIGIDKALVKMQREEQCILYLGPRYGFGEAGKPKFGIDPNAELMYEVTLKSFEKAKES
WEMDTKEKLTQAAIVKEKGTVYFKGGKYTQAVIQYRKIVSWLEMEYGLSEKESKASESFLLAA
FLNLAMCYLKLREYNKAVECCDKALGLDSANEKGLYRRGEAQLLMNDFESAKGDFEKVLAVN
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SEQ ID No.34

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5 SEQ ID No.35

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GKESELAGADRMNDEAAQGRTVHFNEEDLRKQAKRYGGFLRKYPKRSSEMARDEDGGQDGD
QVGHEDLYKRYGGFLRRIRPKLKWDNQKRYGGFLRRQFKVVTRSQENPNTYSEDLDV

#### SEQ ID No.36

15

gacagggcgccctcggaaggacaggatgtcatcaggaaaacaggactccccgtgggaagataggatacctccaggaagatagaatagtcccaggca catggcgcggttcctgaggctttgcacctggctgctggcgcttgggtcctgcctcctggctacagtgcaggcggaatgcagccaggactgcgctaaatgcacgtaccgcctggttcgcccaggcgacatcaatttcctggcgtgcacactggaatgtgaaggtcagctgccttctttcaaaatctgggagacctgcaaggtcagctgcatgtaggtcagctgcttctttcaaaatctgggagacctgcaaggtcagctgcatgtaggtcagctgcttctttcaaaatctgggagacctgcaaggtcagctgcatgtaggtcagctgcttctttcaaaatctgggagacctgcaaggtcagctgcatgtaggtcagctgcatgtaggtcagctgcatgtaggtcagctgcatgtaggtcagctgcatgtaggtcaggtcagctgcatgtaggtcgatctcctgcaggtgtccaggcccgagttcccttgggataacatcgacatgtacaaagacagcagcaaacaggatgagagccacttgctagccaagaa gtacggaggcttcatgaaacggtacggaggcttcatgaagaagatggacgagctatatcccatggagccagaagaagaagaagcgaacggaggagagat ccttgccaagaggtatggcggcttcatgaagaaggatgcagatgagggagacaccttggccaactcctccgatctgctgaaagagctactgggaacgggagacaaccgtgcgaaagacagccaccaacaagagagagcaccaacaatgacgaagacatgagcagcaagaggtatgggggcttcatgagaagcctc25 ctaccagaagaggtatgggggcttcctgaagcgctttgctgagtctctgccctccgatgaagaaggcgaaaattactcgaaagaagttcctgagatagag gatgtttcttgtcacatgctgctttgtgctgtacagttgcccccgtggtctagataactacactgcctgaaagctgtgattttagggtctgtgttcttttgagtcttg aagctcagtattggtctcttatggctatgttgttatcaatagtttgttacctcatctctcctgacgaaacatcaataaatgcttatttgtatataaatataataaaccc30 gtgaccccaactgc

SEQ ID No.37

MARFLRLCTWLLALGSCLLATVQAECSQDCAKCTYRLVRPGDINFLACTLECEGQLPSFKIWET
CKDLLQVSRPEFPWDNIDMYKDSSKQDESHLLAKKYGGFMKRYGGFMKKMDELYPMEPEEEA
NGGEILAKRYGGFMKKDADEGDTLANSSDLLKELLGTGDNRAKDSHQQESTNNDEDMSSKRY
GGFMRSLKRSPQLEDEAKELQKRYGGFMRRVGRPEWWMDYQKRYGGFLKRFAESLPSDEEGE
NYSKEVPEIEKRYGGFMRF

40

## SEQ ID No.38

acceacg c george the act get except content to the property of the content of tccttacctactccagaatgaggggaatggtagcgattctcatcgcttttatgaaacagaggatgggcctgaacgattttattcagaagattgccagcaa cacctatgcatgcaaacacgctgaagttcagtccattttgaaaatgtcccatcctcaggagccggagcttatgaacgctaacccctctcctccgccaagtc cctctcaacaaatcaacctgggtccgtcctccaaccctcacgccaaaccctccgactttcacttcttgaaagtgatcggaaagggcagttttggaaaggttc gcggaatgttctgttgaagaatgtgaagcaccetttcctggtgggccttcacttctcattccagaccgctgacaaactctactttgtcctggactacattaatg gtggagagctgttctaccatctccagagggagcgctgcttcctggaaccacgggctcgattctacgcagctgaaatagccagtgccttgggctatctgca ctccctaaacatcgtttatagagacttaaaacctgagaatattctcctagactcccaggggcacatcgtcctcactgactttgggctctgcaaagagaatattgtottggggctgtcctgtatgagatgctctacggcctgcccccgttttatagccggaacacggctgagatgtacgacaatattctgaacaagcctctccagt atta agag t cata ttt tctctcttta atta actgg gat gat ctcatca ataa gaa gat ta cacccc catta accca a at gt gag t gag cct tc gg55 geotteeteggetteteetatgeaceteetgtggatteetteetetgagtgeteeegggatggttetgaaggaetteeteagegttteetaaagtgtttteettaecctttggtggaggttgccagctgacagaacattttaaaagaatttgcacacctggaagcttggcagtctcgcctgcccggcgtggcgcgacgcagcgcg

10

SEQ ID No.39

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LQKKAILKKKEEKHIMSERNVLLKNVKHPFLVGLHFSFQTADKLYFVLDYINGGELFYHLQRER
CFLEPRARFYAAEIASALGYLHSLNIVYRDLKPENILLDSQGHIVLTDFGLCKENIEHNGTTSTFCG
TPEYLAPEVLHKQPYDRTVDWWCLGAVLYEMLYGLPPFYSRNTAEMYDNILNKPLQLKPNITN
SARHLLEGLLQKDRTKRLGAKDDFMEIKSHIFFSLINWDDLINKKITPPFNPNVSGPSDLRHFDPE
FTEEPVPSSIGRSPDSILVTASVKEAAEAFLGFSYAPPVDSFL

20

SEQ ID No.40

25 ccc agaget ccc aggate te et get aget to get egge agge acge ecce ct taget the acceptance of the experimental control of the experimental contccctggagggactttcaccttcaaaggtgcaggacaaagccgcatatctggcgcccaccatgcacctcaacagctccgtgcagcaggaggccccaagtgaacccggtgcccagcccttcccacatccacagttcggactggagacgatgctcctggcgctcagcttgagcaattggttctggcaattcctcagaatcca30 tcctggagcccaacagcaacctggacgtgaacactgacatttattccaaggtgctggtgaccgctgtatacctggcactttttgtggtgggcactgtgggcaactcggtgacagccttcactctagcgcggaagaagtcgctgcagagcctgcagagcactgtgcattaccacctgggtagcctggcactgtctgacctg 35 ccatgctgatcatctccatcctaaacactgtgatagccaacaaactgaccgtcatggtgcaccaggctgccgaggagggccgtggtgtgtgcaccgtgg gcacccacaacagtttagagcacagcacgttcaacatgtccatcgagccaggccgtgtccaggccctgcgccatggagtcctcgtcttacgtgctgtggt a a togett tig tig stet get get get each extra constraint of the tig state of tig state of the tig state of tigtggcttgcctctgtgctggcgccgccgccgaaagaagaggccaacgttctccaggaagccaaacagcatgtccagcaaccatgcgttttccaccagcgccacccgggaaaccctgtactaggccatgaggaggtagcctgtgcacagggcagcaactccccaacccccaacccccaaagcctccc 45 agctgttgtaaccataacagcaccttggaactgcactggcagggcgagacagtgtctgatgttggacttgggttcagagacacaggctccatctcagcccctt tatge ct ctacte ctg ccct g g tacaga a accatag cacte to t g a g cct tat g tacaga accett to t t g cac g a cacte ct g a g cacte to tatge cacte ct g a g cacte to tatge cacte ct g cacte to tatge cactegtggtccagagaagccccaaaattactgtgtaaggtccagggcccacagctggaagctgtgggaatccatgccacacctggatggctatggccacta a agagacccca attecca cat gec cagga aggata a a aggg ct gg cet gg a at caa cac aggac anget te a agt gg cett gea cat gea cat can be a calculated and the cat gradual cato ttggatctg cag aaggatggaag at aagtggggtccag cotcoccag to cag gtggctttgctggggacatgcatggttctgcgtctcatatacag at general content of the contetatagactaaggtotgacagcagctggcttcaggctgggacttctgagaaggggcactgagccaggtcctcagcaagatgccagtgtctgagactccacaggtaaggggaggccaagcaccccagcatctagctggccagcagccctggactgaggcatatgtcaatttgttaaccagccgccaagcagccaccct ggcccaggttctaggcgcctggaaaagcaggcaccttcatctctgggagctgtctccaaacaagacaggcccattcagcctccagccaacaagctgg ctgggcacttggagacagtcccaggatgccatgcaccaacaaggtagaagtagcaggagagtcaagtgtagccttttgcaaaagagccttagctctgttgtotgggagagatggctggacatgcagctgctctgtaaggatgaaattgccacgggacatgggaggctcagtcacagcccaggctagcctctgctc55 cctctgaactataaaacaatgggtgaaaagtcagggtatctgtggtcacccagagaaaatggggagggtgttcaagtacttgaaccccacaaaacactgctactagta at get a tect cagge cat can agge cagga cet gg get cagga tecagga tecagga tecagga agat get gat caccca agga gg ga agge cagga tecagga te

SEQ ID No.41

5

- 10 MHLNSSVQQGAPSEPGAQPFPHPQFGLETMLLALSLSNGSGNSSESILEPNSNLDVNTDIYSKVLV
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  ASALLAVPMLFTMGLQNRSADGQHPGGLVCTPTVDTATVKVVIQVNTFMSFLFPMLIISILNTVI
  ANKLTVMVHQAAEQGRGVCTVGTHNSLEHSTFNMSIEPGRVQALRHGVLVLRAVVIAFVVCW
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- LCPGWRRRKKRPTFSRKPNSMSSNHAFSTSATRETLY